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OM protein - protein search, using sw model

Run on: November 30, 2002, 12:29:03 : Search time 13.7463 Seconds

(without alignments)  
1066.922 Million cell updates/sec

US-10-054-680-2

Perfect score: 4797  
Sequence: 1 MAMLRQLPLTSAPLHFGVLT.....LMLYLIFATLEAVCYIKGF 921

Scoring table:

BLOSUM62  
Gapop 10.0, Gapext 0.5

searched: 102317 seqs, 15924203 residues

Total number of hits satisfying chosen parameters: 102317

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing: first 45 summaries

Database: Published Applications AA:

1: /cgn2\_6/ptodata/2/pubpaa/US08\_NEW\_PUB.pep:\*  
2: /cgn2\_6/ptodata/2/pubpaa/PCT\_NEW\_PUB.pep:\*  
3: /cgn2\_6/ptodata/2/pubpaa/US06\_NEW\_PUB.pep:\*  
4: /cgn2\_6/ptodata/2/pubpaa/US07\_PUBCOMB.pep:\*  
5: /cgn2\_6/ptodata/2/pubpaa/US07\_PUBCOMB.pep:\*  
6: /cgn2\_6/ptodata/2/pubpaa/US07\_PUBCOMB.pep:\*  
7: /cgn2\_6/ptodata/2/pubpaa/PCTUS\_PUBCOMB.pep:\*  
8: /cgn2\_6/ptodata/2/pubpaa/US08\_PUBCOMB.pep:\*  
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13: /cgn2\_6/ptodata/2/pubpaa/US60\_NEW\_PUB.pep:\*  
14: /cgn2\_6/ptodata/2/pubpaa/US60\_PUBCOMB.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	4797	100.0	921	10	US-09-804-474A-2
2	4797	100.0	921	12	US-10-054-680-2
3	4686	97.7	927	10	US-09-804-474A-4
4	3425.5	71.4	970	10	US-09-901-419-2
5	3093	64.5	620	12	US-10-054-680-4
6	2143.5	44.7	609	10	US-09-864-761-33429
7	424	8.8	91	10	US-09-864-761-33926
8	239.5	5.0	661	12	US-10-094-214-5
9	234.5	4.9	603	10	US-09-961-679-2
10	194.5	4.1	152	12	US-10-094-214-4
11	165	3.4	353	10	US-09-961-679-6
12	162.5	3.4	316	10	US-09-961-679-4
13	151	3.1	42	10	US-09-864-761-37185
14	116.5	2.4	584	12	US-10-094-214-2
15	116	2.4	657	10	US-09-815-242-12135
16	116	2.4	657	10	US-09-815-242-13013
17	115.5	2.4	1786	9	US-09-742-096-3
18	112.5	2.3	1202	10	US-09-864-761-43061
19	109.5	2.3	486	10	US-09-815-242-13455

20	108	2.3	721	9	US-10-121-032-19	Sequence 19, Appl
21	108	2.3	1616	9	US-09-712-363-262	Sequence 262, App
22	106	2.2	408	10	US-09-815-242-10136	Sequence 10136, A
23	104	2.2	652	10	US-09-815-242-5896	Sequence 5896, Ap
24	104	2.2	995	10	US-09-864-761-49017	Sequence 49017, A
25	102	2.1	1115	10	US-09-761-558-2	Sequence 2, Appl1
26	101.5	2.1	1349	10	US-09-815-242-5898	Sequence 5898, A
27	101.5	2.1	1349	10	US-09-815-242-13157	Sequence 13157, A
28	101	2.1	1381	10	US-09-930-871-8	Sequence 8, Appl1
29	101	2.1	1387	10	US-09-930-871-10	Sequence 10, Appl
30	101	2.1	1392	10	US-09-930-871-18	Sequence 18, Appl
31	101	2.1	1398	10	US-09-930-871-20	Sequence 20, Appl
32	101	2.1	1442	10	US-09-930-871-6	Sequence 6, Appl1
33	101	2.1	1453	10	US-09-930-871-16	Sequence 16, Appl
34	101	2.1	1962	10	US-09-930-871-4	Sequence 4, Appl1
35	101	2.1	1973	10	US-09-930-871-14	Sequence 14, Appl
36	101	2.1	1998	10	US-09-930-871-2	Sequence 2, Appl1
37	101	2.1	2009	10	US-09-930-871-12	Sequence 12, Appl
38	100.5	2.1	591	10	US-09-815-242-5662	Sequence 5662, Ap
39	99.5	2.1	569	10	US-09-931-147-2	Sequence 5229, Ap
40	99.5	2.1	1184	10	US-09-815-242-5229	Sequence 12125, A
41	99.5	2.1	1188	10	US-09-815-242-12125	Sequence 13243, A
42	98	2.0	616	10	US-09-815-242-13243	Sequence 13566, A
43	98	2.0	616	10	US-09-815-242-13566	Sequence 84, Appl
44	97.5	2.0	722	10	US-09-765-272-84	Sequence 2, Appl1
45	97.5	2.0	1614	9	US-09-887-540A-2	

## ALIGNMENTS

## RESULT 1

US-09-804-474A-2

Sequence 2, Application US/09804474A

Patent No. US20020119518A1

GENERAL INFORMATION:

APPLICANT: KODEN, Stefan, et al

TITLE OF INVENTION: ISOLATED HUMAN TRANSPORTER PROTEINS,

FIELD OF INVENTION: BIOCHEMISTRY; MOLECULAR BIOLOGY; ENCODING-HUMAN TRANSPORTER PROTEINS,

FILE REFERENCE: CLO00891

CURRENT APPLICATION NUMBER: US/09/804,474A

CURRENT FILING DATE: 2001-03-13

NUMBER OF SEQ ID NOS: 4

SOFTWARE: FastSeq for Windows Version 4.0

SEQ ID NO 2

LENGTH: 921

TYPE: PRT

ORGANISM: Human

US-09-804-474A-2

Query Match  
Best Local Similarity 100.0%; Score 4797; DB 10; Length 921;  
Matches 921; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	MAMLRQLPLTSAPLHFGVLTFLVFLNGLRARAGGSDVSTGONNSCGSSDCKRGVLT	60
DB	1	MAMLRQLPLTSAPLHFGVLTFLVFLNGLRARAGGSDVSTGONNSCGSSDCKRGVLT	60
QY	61	PLMYEPNPSLGRKIRAVIYFVALIYMFGLVSIIDRFMASLEVTISQREVTIKKPNCE	120
DB	61	PLMYEPNPSLGRKIRAVIYFVALIYMFGLVSIIDRFMASLEVTISQREVTIKKPNCE	120
QY	121	TSTTTRVWNETVSNLTALGSSAPEILLSTIEVCGHFIAGDLGPSTIVGSAFNMFI	180
DB	121	TSTTTRVWNETVSNLTALGSSAPEILLSTIEVCGHFIAGDLGPSTIVGSAFNMFI	180
QY	181	ITIGICVYVPDEETRIKRLRFFITTAANSIRAVITMLVAVFSQGVQVWEGLLTFE	240
DB	181	ITIGICVYVPDEETRIKRLRFFITTAANSIRAVITMLVAVFSQGVQVWEGLLTFE	240
QY	241	FPVCVLLAVAKRLLFYKMKKRTDKHRCIIETEDGHRGKTIEMDKMNSHFLDGN	300
DB	241	FPVCVLLAVAKRLLFYKMKKRTDKHRCIIETEDGHRGKTIEMDKMNSHFLDGN	300

Db 241 FVPCVLLAWVADKRLLEFKYMHKKYRTDKHRCIIIEEGDHPKGIEMDGKMMNSHFLDGN 300  
QY 301 LVPLEGKEVDESREMRIRILDKLKHPEKDLOLVEMANYVALSHOOKSRATRYRIOATR 360  
Db 301 LVPLEGKEVDESREMRIRILDKLKHPEKDLOLVEMANYVALSHOOKSRATRYRIOATR 360  
QY 361 MMTGAGNIIKKHAAEQAKKASMSSEVHTDEPEDEFSKVFEDPCSYOCLENGCAVLLTVVR 420  
Db 361 MMTGAGNIIKKHAAEQAKKASMSSEVHTDEPEDEFSKVFEDPCSYOCLENGCAVLLTVVR 420  
QY 421 KGGDMSKTMVVDKKTEDGSMNAGADYEFTGTYVVLKPGETQKRFSGVGIIDDDI.FEEDENR 480  
Db 421 KGGDMSKTMVVDKKTEDGSMNAGADYEFTGTYVVLKPGETQKRFSGVGIIDDDI.FEEDENR 480  
QY 481 FVRLSNVRIEEOPEEGMPAIFNSLPLPRAVLASPCVATVTLDDDHAGIFFEEDCTIH 540  
Db 481 FVRLSNVRIEEOPEEGMPAIFNSLPLPRAVLASPCVATVTLDDDHAGIFFEEDCTIH 540  
QY 541 VSESIGMEVKVLRGSGARCTVLPFRVTEGTAKGGGEDEDTYGELEFKNDETIVKTI 600  
Db 541 VSESIGMEVKVLRGSGARCTVLPFRVTEGTAKGGGEDEDTYGELEFKNDETIVKTI 600  
QY 601 KIYDEEYERQENFIALGEPKMERGISDVYTRKLTMEEEKRIAEKMPVLGEHPKL 660  
Db 601 KIYDEEYERQENFIALGEPKMERGISDVYTRKLTMEEEKRIAEKMPVLGEHPKL 660  
QY 661 EVIIEESYERKTTVDKLIKKTNLALVGTSHMRDQFMEATTVSAAGDEDEDESGEERLPS 720  
Db 661 EVIIEESYERKTTVDKLIKKTNLALVGTSHMRDQFMEATTVSAAGDEDEDESGEERLPS 720  
QY 721 CFDYVMHFLTVFKVLPACVPPTYCHGACFAVSLIIGMLTAIIGDLASHFGCTIGLK 780  
Db 721 CFDYVMHFLTVFKVLPACVPPTYCHGACFAVSLIIGMLTAIIGDLASHFGCTIGLK 780  
QY 781 DSVTAVVFAVAFGTSVPDTEFSKAAALODVYADASIGNVGSNNVNFGLIGLAMSVAAYI 840  
Db 781 DSVTAVVFAVAFGTSVPDTEFSKAAALODVYADASIGNVGSNNVNFGLIGLAMSVAAYI 840  
QY 841 WALOGGEFHVSACTLAFSVTLFTIFAFVCISVLLYRRRPHLGGELGPRCKLATWMLFV 900  
Db 841 WALOGGEFHVSACTLAFSVTLFTIFAFVCISVLLYRRRPHLGGELGPRCKLATWMLFV 900  
QY 901 STMWLVIYLFATLEAYCYINGF 921  
Db 901 STMWLVIYLFATLEAYCYINGF 921

RESULT 2  
US-10-054-680-2  
Sequence 2, Application US/10054680  
Patent No. US2002013298A1  
GENERAL INFORMATION:  
; APPLICANT: Fridde, Carl Johan  
; APPLICANT: Hilbun, Erlin  
; TITLE OF INVENTION: No. US2002013298A1el Human Ion Exchanger Proteins and Polynucle  
; FILE REFERENCE: Same  
; CURRENT APPLICATION NUMBER: US/10/054,680  
; CURRENT FILING DATE: 2002-01-22  
; PRIOR APPLICATION NUMBER: US 60/263,384  
; PRIOR FILING DATE: 2001-01-23  
; NUMBER OF SEQ ID NOS: 5  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 2  
; LENGTH: 921  
; TYPE: prt  
; ORGANISM: homo sapiens  
US-10-054-680-2

Query Match 100.0%; Score 4797; DB 12; Length 921;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 921; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MAMLRLOPLTSAFLHGLVTVFLNLGLRAEAGSGDVPSTGONNESCSSGSDCKEGVIL 60  
Db 1 MAMLRLOPLTSAFLHGLVTVFLNLGLRAEAGSGDVPSTGONNESCSSGSDCKEGVIL 60  
QY 61 PIYRPENPSIGDKIARYIVFVALLIYFGLSVIADRFMAISEVITISQEEVITIKRPNGE 120  
Db 61 PIYRPENPSIGDKIARYIVFVALLIYFGLSVIADRFMAISEVITISQEEVITIKRPNGE 120  
QY 121 TSTTTIRVWNETVSNLTLMAGSAPETILSL.EVCGHGFIAGDLGPSTVGSAAFMFI 180  
Db 121 TSTTTIRVWNETVSNLTLMAGSAPETILSL.EVCGHGFIAGDLGPSTVGSAAFMFI 180  
QY 181 IIGICVYVJPDGETRKIKHLRVEFIITAAMSIFAYIMLYMLAVESPGVYVWEGLLTLFE 240  
Db 181 IIGICVYVJPDGETRKIKHLRVEFIITAAMSIFAYIMLYMLAVESPGVYVWEGLLTLFE 240  
QY 241 FVPCVLLAWVADKRLLEFKYMHKKYRTDKHRCIIIEEGDHPKGIEMDGKMMNSHFLDGN 300  
Db 241 FVPCVLLAWVADKRLLEFKYMHKKYRTDKHRCIIIEEGDHPKGIEMDGKMMNSHFLDGN 300  
QY 301 LVPLEGKEVDESREMRIRILDKLKHPEKDLOLVEMANYVALSHOOKSRATRYRIOATR 360  
Db 301 LVPLEGKEVDESREMRIRILDKLKHPEKDLOLVEMANYVALSHOOKSRATRYRIOATR 360  
QY 361 MMTGAGNIIKKHAAEQAKKASMSSEVHTDEPEDEFSKVFEDPCSYOCLENGCAVLLTVVR 420  
Db 361 MMTGAGNIIKKHAAEQAKKASMSSEVHTDEPEDEFSKVFEDPCSYOCLENGCAVLLTVVR 420  
QY 421 KGGDMSKTMVVDKKTEDGSMNAGADYEFTGTYVVLKPGETQKRFSGVGIIDDDI.FEEDENR 480  
Db 421 KGGDMSKTMVVDKKTEDGSMNAGADYEFTGTYVVLKPGETQKRFSGVGIIDDDI.FEEDENR 480  
QY 481 FVRLSNVRIEEOPEEGMPAIFNSLPLPRAVLASPCVATVTLDDDHAGIFFEEDCTIH 540  
Db 481 FVRLSNVRIEEOPEEGMPAIFNSLPLPRAVLASPCVATVTLDDDHAGIFFEEDCTIH 540  
QY 541 VSESIGMEVKVLRGSGARCTVLPFRVTEGTAKGGGEDEDTYGELEFKNDETIVKTI 600  
Db 541 VSESIGMEVKVLRGSGARCTVLPFRVTEGTAKGGGEDEDTYGELEFKNDETIVKTI 600  
QY 601 KIYDEEYERQENFIALGEPKMERGISDVYTRKLTMEEEKRIAEKMPVLGEHPKL 660  
Db 601 KIYDEEYERQENFIALGEPKMERGISDVYTRKLTMEEEKRIAEKMPVLGEHPKL 660  
QY 661 EVIIEESYERKTTVDKLIKKTNLALVGTSHMRDQFMEATTVSAAGDEDEDESGEERLPS 720  
Db 661 EVIIEESYERKTTVDKLIKKTNLALVGTSHMRDQFMEATTVSAAGDEDEDESGEERLPS 720  
QY 721 CFDYVMHFLTVFKVLPACVPPTYCHGACFAVSLIIGMLTAIIGDLASHFGCTIGLK 780  
Db 721 CFDYVMHFLTVFKVLPACVPPTYCHGACFAVSLIIGMLTAIIGDLASHFGCTIGLK 780  
QY 781 DSVTAVVFAVAFGTSVPDTEFSKAAALODVYADASIGNVGSNNVNFGLIGLAMSVAAYI 840  
Db 781 DSVTAVVFAVAFGTSVPDTEFSKAAALODVYADASIGNVGSNNVNFGLIGLAMSVAAYI 840  
QY 841 WALOGGEFHVSACTLAFSVTLFTIFAFVCISVLLYRRRPHLGGELGPRCKLATWMLFV 900  
Db 841 WALOGGEFHVSACTLAFSVTLFTIFAFVCISVLLYRRRPHLGGELGPRCKLATWMLFV 900  
QY 901 STMWLVIYLFATLEAYCYINGF 921  
Db 901 STMWLVIYLFATLEAYCYINGF 921

RESULT 3  
US-09-804-474A-4  
; Sequence 4, Application US/09804474A  
; Patent No. US20020119518A1  
GENERAL INFORMATION:  
; APPLICANT: KODER, Stefan et al  
; TITLE OF INVENTION: ISOLATED HUMAN TRANSPORTER PROTEINS,  
; TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN TRANSPORTER PROTEINS,

;; TITLE OF INVENTION: AND USES THEREOF  
;; FILE REFERENCE: CLO00891  
;; CURRENT APPLICATION NUMBER: US/09/804,474A  
;; CURRENT FILING DATE: 2001-03-13  
;; NUMBER OF SEQ ID NOS: 4  
;; SOFTWARE: FastSeq for Windows Version 4.0  
;; SEQ ID NO 4  
;; LENGTH: 927  
;; TYPE: PRT  
;; ORGANISM: Rat  
US-09-804-474A-4

Query Match 97.7%; Score 4686; DB 10; Length 927;  
Best Local Similarity 96.8%; Pred. No. 0;  
Matches 897; Conservative 14; Mismatches 10; Indels 6; Gaps 1;

QY 1 MAMLRLOPLTSAFLHFGVLTFLVTLNGLAERAGSGDVPSTGONNESCSSDCKEGVIL 60  
b 1 MAMLRLOPLTSAFLHFGVLTFLVTLNGLAERAGDLRDVPSAGONNESCSSDCKEGVIL 60  
QY 61 PIWYENPSLGDKIRAVIYFVALIYMLFGVSIIDRFMASTIEVTSQREVTIKKPNGE 120  
Db 61 PIWYENPSLGDKIRAVIYFVALIYMLFGVSIIDRFMASTIEVTSQREVTIKKPNGE 120  
QY 121 TSTTIRWNETVSNLTLMALGSSAPEILLIEVCGHGFAGDLPSTIYVSAAFNMTI 180  
Db 121 TSTTIRWNETVSNLTLMALGSSAPEILLIEVCGHGFAGDLPSTIYVSAAFNMTI 180  
QY 181 IIGICVYVIPDGETRKIKHLRVFETTAAMSFAYIMLMIILAFSPGVQVMEGLITLFF 240  
Db 181 IIGICVYVIPDGETRKIKHLRVFETTAAMSFAYIMLMIILAFSPGVQVMEGLITLFF 240  
QY 241 FPVCLLAMVADKRLLFYKYMHKRTDKHRCIIETBEDHKGKGIEMDKMNSHPLDGN 300  
Db 241 FPVCLLAMVADKRLLFYKYMHKRTDKHRCIIETBEDHKGKGIEMDKMNSHPLDGN 300  
QY 301 LVPLEGEVDESRRMIRILDKOKHPEKDLDQLVEMANYALSHOOKSRAFYRIQATR 360  
Db 301 LVPLEGEVDESRRMIRILDKOKHPEKDLDQLVEMANYALSHOOKSRAFYRIQATR 360  
QY 361 MMTGAGNLTAKHAQAOKKASMSSEVHTDEPDTISKYFEDPCSYOCLENCAGVILLTVR 420  
Db 361 MMTGAGNLTAKHAQAOKKASMSSEVHTDEPDTISKYFEDPCSYOCLENCAGVILLTVR 420  
QY 421 KGGDSKTMVYDYKTEDGSANAGADYEETEGTVVLKPGTOKEFESVGIIDDDIIFEDDEF 480  
Db 421 KGGDSKTMVYDYKTEDGSANAGADYEETEGTVVLKPGTOKEFESVGIIDDDIIFEDDEF 480  
QY 481 FVRLSNVRIEEOPEGMPAIFNSLPLRAVLASPCVATVTLDDDHAGITFECDTIH 540  
Db 481 FVRLSNVRIEEOPEGMPAIFNSLPLRAVLASPCVATVTLDDDHAGITFECDTIH 540  
QY 541 VSESIGVMEVKVLRISGARGIYVPRRYVEGTAKGGGDEDTYGBLEKNDETVKTIRV 600  
Db 541 VSESIGVMEVKVLRISGARGIYVPRRYVEGTAKGGGDEDTYGBLEKNDETVKTIRV 600  
QY 601 KIVDEEYEROBNEFLIAGEPKWMERGTS-----DVTDRKLTMEEEKKRAEMCKPVL 654  
Db 601 KIVDEEYEROBNEFLIAGEPKWMERGTS-----DVTDRKLTMEEEKKRAEMCKPVL 654  
QY 654 GEHPLEVIIEESYEFTKTVDKLTKKTNIALVNGTHSMRDQFMEAITVSAACDEDEDESG 714  
Db 654 GEHPLEVIIEESYEFTKTVDKLTKKTNIALVNGTHSMRDQFMEAITVSAACDEDEDESG 714  
QY 714 EERLPSCEDYVNHFLTVEMKVLACVPPTYEGHGNACFAVSLIIGMTAIIIGDLASHRG 774  
Db 714 EERLPSCEDYVNHFLTVEMKVLACVPPTYEGHGNACFAVSLIIGMTAIIIGDLASHRG 774  
QY 774 CTIGKDSVTAVVFAFGSVPDFTASRAKALODVYADASTGNMGSSNVNVPFLIGLGM 834  
Db 774 CTIGKDSVTAVVFAFGSVPDFTASRAKALODVYADASTGNMGSSNVNVPFLIGLGM 834  
QY 834 SVAAIYMALOGEPEHFVSAGTLAFSVTLFTIFAFCISVLLYRRRPHLGLGELGPRCKLA 894  
Db 834 SVAAIYMALOGEPEHFVSAGTLAFSVTLFTIFAFCISVLLYRRRPHLGLGELGPRCKLA 894

Db 841 SVAAIYMALOGEPEHFVSAGTLAFSVTLFTIFAFCISVLLYRRRPHLGLGELGPRCKLA 900  
QY 895 TTMLEFVSLMLYLTLPATEAYCYIKGF 921  
Db 901 TTMLEFVSLMLYLTLPATEAYCYIKGF 927

## RESULT 4

US-09-901-419-2  
; Sequence 2, Application US/09901419  
; Patent No. US20020069421A1  
; GENERAL INFORMATION:  
; APPLICANT: The Curators of the University of Missouri  
; TITLE OF INVENTION: LARGE SCALE EXPRESSION AND PURIFICATION OF RECOMBINANT  
; FILE REFERENCE: UMOI531.1  
; CURRENT APPLICATION NUMBER: US/09/901,419  
; CURRENT FILING DATE: 2001-07-09  
; PRIOR APPLICATION NUMBER: 60/218,125  
; NUMBER OF SEQ ID NOS: 2  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 2  
; LENGTH: 970  
; TYPE: PRT  
; ORGANISM: Bos taurus  
US-09-901-419-2

Query Match 71.4%; Score 3425.5; DB 10; Length 970;  
Best Local Similarity 68.7%; Pred. No. 6,3e-291;  
Matches 672; Conservative 110; Mismatches 131; Indels 65; Gaps 10;

QY 1 MAMLRLOPLTSAFLHFGVLTFLVTLNGLAERAGSGDVPSTGONNESCSSDCKEGV 58  
Db 1 MAMLRLOPLTSAFLHFGVLTFLVTLNGLAERAGDLRDVPSAGONNESCSSDCKEGV 56  
QY 59 ILPIWPEPSPSGDKIRAVIYFVALIYMLFGVSIIDRFMASTIEVTSQREVTIKKPN 118  
Db 59 ILPIWPEPSPSGDKIRAVIYFVALIYMLFGVSIIDRFMASTIEVTSQREVTIKKPN 116  
QY 119 GETSTTIRWNETVSNLTLMALGSSAPEILLIEVCGHGFAGDLPSTIYVSAAFNMTI 178  
Db 119 GETSTTIRWNETVSNLTLMALGSSAPEILLIEVCGHGFAGDLPSTIYVSAAFNMTI 176  
QY 177 FTIIALCVYVVDGETRKIKHLRVFETTAAMSFAYIMLMIILAFSPGVQVMEGLITL 236  
Db 177 FTIIALCVYVVDGETRKIKHLRVFETTAAMSFAYIMLMIILAFSPGVQVMEGLITL 236  
QY 239 FFPVCLLAMVADKRLLFYKYMHKRTDKHRCIIETBEDHKGKGIEMDKMNSHPLDGN 295  
Db 239 FFPVCLLAMVADKRLLFYKYMHKRTDKHRCIIETBEDHKGKGIEMDKMNSHPLDGN 295  
QY 296 ---FLDGNLVPLEGEVD---ESRREMTIRILDKOKHPEKDLDQLVEMANYALSHOO 348  
Db 296 ---FLDGNLVPLEGEVD---ESRREMTIRILDKOKHPEKDLDQLVEMANYALSHOO 348  
QY 349 KSRAPYRIQATRMGTAGIILKHAQAOKKASMSSEVHTDEP-DTISKVFPDPCSYOC 407  
Db 349 KSRAPYRIQATRMGTAGIILKHAQAOKKASMSSEVHTDEP-DTISKVFPDPCSYOC 407  
QY 408 LENCAGVILLTVRKGGDSKTMVYDYKTEDGSANAGADYEETEGTVVLKPGTOKEFESV 467  
Db 408 LENCAGVILLTVRKGGDSKTMVYDYKTEDGSANAGADYEETEGTVVLKPGTOKEFESV 467  
QY 468 IIDDIFEEDEHFFVLSNVRIEEOPEGMPAIFNSLPLRAVLASPCVATVTLDD 527  
Db 468 IIDDIFEEDEHFFVLSNVRIEEOPEGMPAIFNSLPLRAVLASPCVATVTLDD 527  
QY 528 HAGITFECDTIHVESIGVMEVKVLRISGARGIYVPRRYVEGTAKGGGDEDTYGBLE 587  
Db 528 HAGITFECDTIHVESIGVMEVKVLRISGARGIYVPRRYVEGTAKGGGDEDTYGBLE 587  
QY 587 HAGITFECDTIHVESIGVMEVKVLRISGARGIYVPRRYVEGTAKGGGDEDTYGBLE 592  
Db 587 HAGITFECDTIHVESIGVMEVKVLRISGARGIYVPRRYVEGTAKGGGDEDTYGBLE 592

QY 588 EFKNDEVTAKIRKIVDEEYEROEENFIALGEPKMERG----- 627  
Db 593 EFNDDEIVKTIISVVIDDEEYERKKTFFELIGEPRLVEMSEKKALLINELGEGITGKYL 652  
QY 628 -----ISDVTDRK--LTMEEEKRRIAEMKRPVLGEHPRLEVI 663  
Db 653 YGDPVFERKVAHREHPLRSTITTTTADVEDDKOPPLTSKEEERRRIAEMGRPLIGETRRLEVI 712  
QY 664 IESEYERKTVVDKLIKRTNINLALVGTSHWRDQFMEATTVSAGDEDESEGERLPSCFD 723  
Db 713 IESEYERKTVVDKLIKRTNINLALVGTSHWRDQFMEATTVSAGDEDEDEGEGERLPSCFD 772  
QY 724 YMHFTLVENKVLFCVCPPTPEYCHGACFAVSLIIGMLTAIIGDLASHFCCTIGLDSV 783  
Db 773 YMHFTLVENKVLFCVCPPTPEYCHGACFAVSLIIGMLTAIIGDLASHFCCTIGLDSV 832  
QY 784 TAVFVAFGTSVPDTEFSKAAALODYADASIGNVGTSSNANVNFGLGLAMSAVAITWAL 843  
Db 833 TAVFVAFGTSVPDTEFSKAAALODYADASIGNVGTSSNANVNFGLGLAMSAVAITWAL 892  
QY 844 QGGEFHVSACTLAFTSVLTIFAFVCISVLLYRRRPHLGGELGGPRGCKLATWLFVSLW 903  
Db 893 NGGEFHVSACTLAFTSVLTIFAFVCISVLLYRRRPHLGGELGGPRGCKLATWLFVSLW 952  
QY 904 LVIYLFATLEAYCYKGF 921  
Db 953 LVIYLFATLEAYCYKGF 970

RESULT 5  
US-10-054-680-4  
; Sequence 4, Application US/10054680  
; Patent No. US20020132998A1  
; GENERAL INFORMATION:  
; APPLICANT: Frittle, Carl Johan  
; TITLE OF INVENTION: No. US20020132998A1 Human Ion Exchanger Proteins and Polynucleo  
; FILE REFERENCE: Same  
; CURRENT APPLICATION NUMBER: US/10/054,680  
; CURRENT FILING DATE: 2002-01-22  
; PRIOR APPLICATION NUMBER: US 60/263,384  
; PRIOR FILING DATE: 2001-01-23  
; NUMBER OF SEQ ID NOS: 5  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 4  
; LENGTH: 620  
; TYPE: PRT  
; ORGANISM: homo sapiens  
; S-10-054-680-4  
Query Match 64.5%; Score 3093; DB 12; Length 620;  
Best Local Similarity 100.0%; Pred. No. 3.7e-262;  
Matches 555; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 MAMLRLOPLTSAPLHGLVTVFLNGLRAEAGSGDVPSTGONNESCSSDCKEGVIL 60  
Db 1 MAMLRLOPLTSAPLHGLVTVFLNGLRAEAGSGDVPSTGONNESCSSDCKEGVIL 60  
QY 61 PIWYRPNPISGDKIARIVYFVALITYELGVSTIADRPMASIEVITSQEREVTIKRNGE 120  
Db 61 PIWYRPNPISGDKIARIVYFVALITYELGVSTIADRPMASIEVITSQEREVTIKRNGE 120  
QY 121 TSTTTTAVNMETVSNLTLMLGSSAPRILSLIEVCGHGTIADLGGSTVIGSAAFMFI 180  
Db 121 TSTTTTAVNMETVSNLTLMLGSSAPRILSLIEVCGHGTIADLGGSTVIGSAAFMFI 180  
QY 181 IIGICVAVIDGERTKIKHRAVFETTAAGSIFAFIMLYMLIAVSPVVOVWEGCLTLFF 240  
Db 181 IIGICVAVIDGERTKIKHRAVFETTAAGSIFAFIMLYMLIAVSPVVOVWEGCLTLFF 240  
QY 241 FVPCVLLAWADKRLLEFYKMKRYRTDKHGIIIEEGDHPKGIEMDKMMNSHFLDGN 300  
Db 241 FVPCVLLAWADKRLLEFYKMKRYRTDKHGIIIEEGDHPKGIEMDKMMNSHFLDGN 300

Db 241 FVPCVLLAWADKRLLEFYKMKRYRTDKHGIIIEEGDHPKGIEMDKMMNSHFLDGN 300  
QY 301 LVPLEGKEVEDSREMRIRILDKOKHPEKDLDOVEMANVYALSHOOKSRAFYRQATR 360  
Db 301 LVPLEGKEVEDSREMRIRILDKOKHPEKDLDOVEMANVYALSHOOKSRAFYRQATR 360  
QY 361 MMGAGNIIKHAHQAKKASSMSEVHTDEPEDEFSKVFPPCSYOCLENGCAVLLTVVR 420  
Db 361 MMGAGNIIKHAHQAKKASSMSEVHTDEPEDEFSKVFPPCSYOCLENGCAVLLTVVR 420  
QY 421 KGGDMSTMVVDYKTEGGSANAGADYETGTYVLAKGETOKESVGIIDDDIIFEEDEHF 480  
Db 421 KGGDMSTMVVDYKTEGGSANAGADYETGTYVLAKGETOKESVGIIDDDIIFEEDEHF 480  
QY 481 FVRLSNRIEEDPEEPMPIFNSLPLPRAVLAAPCVATVTIIDDHAGITFECDTIH 540  
Db 481 FVRLSNRIEEDPEEPMPIFNSLPLPRAVLAAPCVATVTIIDDHAGITFECDTIH 540  
QY 541 VSESIGVMEYKVLRTSGARCTVIVPFTVEGTAKGGGEDEDTYGELEFKNDETIV 595  
Db 541 VSESIGVMEYKVLRTSGARCTVIVPFTVEGTAKGGGEDEDTYGELEFKNDETIV 595  
RESULT 6  
US-09-864-761-33429  
; Sequence 33429, Application US/09864761  
; Patent No. US20020048763A1  
; GENERAL INFORMATION:  
; APPLICANT: Penn, Sharon G.  
; APPLICANT: Rank, David R.  
; APPLICANT: Hanzel, David K.  
; APPLICANT: Chen, Wensheng  
; TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FO  
; FILE REFERENCE: Aecm1ca-X-1  
; CURRENT APPLICATION NUMBER: US/09/864,761  
; CURRENT FILING DATE: 2001-05-23  
; PRIOR APPLICATION NUMBER: US 60/180,312  
; PRIOR FILING DATE: 2000-02-04  
; PRIOR APPLICATION NUMBER: US 60/207,456  
; PRIOR FILING DATE: 2000-05-26  
; PRIOR APPLICATION NUMBER: US 09/632,366  
; PRIOR FILING DATE: 2000-08-03  
; PRIOR APPLICATION NUMBER: GB 24263,6  
; PRIOR FILING DATE: 2000-10-04  
; PRIOR APPLICATION NUMBER: US 60/236,359  
; PRIOR FILING DATE: 2000-09-27  
; PRIOR APPLICATION NUMBER: PCT/US01/00666  
; PRIOR FILING DATE: 2001-01-30  
; PRIOR APPLICATION NUMBER: PCT/US01/00667  
; PRIOR FILING DATE: 2001-01-30  
; PRIOR APPLICATION NUMBER: PCT/US01/00664  
; PRIOR FILING DATE: 2001-01-30  
; PRIOR APPLICATION NUMBER: PCT/US01/00669  
; PRIOR FILING DATE: 2001-01-30  
; PRIOR APPLICATION NUMBER: PCT/US01/00663  
; PRIOR FILING DATE: 2001-01-30  
; PRIOR APPLICATION NUMBER: PCT/US01/00662  
; PRIOR FILING DATE: 2001-01-30  
; PRIOR APPLICATION NUMBER: PCT/US01/00661  
; PRIOR FILING DATE: 2001-01-30  
; PRIOR APPLICATION NUMBER: PCT/US01/00670  
; PRIOR FILING DATE: 2001-01-30  
; PRIOR APPLICATION NUMBER: US 60/234,687  
; PRIOR FILING DATE: 2000-09-21  
; PRIOR APPLICATION NUMBER: US 09/608,408  
; PRIOR FILING DATE: 2000-06-30  
; PRIOR APPLICATION NUMBER: US 09/774,203  
; PRIOR FILING DATE: 2001-01-29

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NUMBER OF SEQ ID NOS: 49117
SOFTWARE: Anomax Sequence Listing Engine vers. 1.1
SEQ ID NO 33429
LENGTH: 609
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: MAP TO AC007281.3
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 0.64
OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 0.68
OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 0.69
OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 6.1
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 0.83
OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 1.3
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.68
OTHER INFORMATION: EST_HUMAN HIT: AW452398.1, EVALUE 1.00e-49
OTHER INFORMATION: SWISSPROT HIT: P32418, EVALUE 0.00e+00
US-09-864-761-33429
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Query Match 44.7% Score 2143.5; DB 10; Length 609;
Best Local Similarity 69.3%; Pred. No. 3.8e-179;
Matches 420; Conservative 76; Mismatches 89; Indels 21; Gaps 8;
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QY 1 MAMRLAPLTSALHFGVTVLFL--LNGLRAGSGDVPSTGQNNESGSSDCKEGV 58
DB 11 MRLSLSPFSGFHLVTVSLFSDVHDVIAETEMEGGNETGE---CTGSIYCKKGV 66
QY 59 ILPIYRPENPSIGDKIARIYVFAVALLIYFGLVSIADRFMASTEVTSQREVTIKPN 118
DB 67 ILPIYRPENPSIGDKIARIYVFAVALLIYFGLVSIADRFMASTEVTSQREVTIKPN 126
QY 119 GETSTTTRVWNETVSNLTALMGSSAPEILLSTLECGHGFIADLGSTIVGSAAFNM 178
DB 127 GETTTRVWNETVSNLTALMGSSAPEILLSTLECGHGFIADLGSTIVGSAAFNM 186
QY 179 FIIGICVYVDPGETRRIKHLRVEFTAAWSIFAYIMLYMLAIVSPGVQVWEGLLTL 238
DB 187 FIILACVYVDPGETRRIKHLRVEFTAAWSIFAYIMLYMLAIVSPGVQVWEGLLTL 246
QY 239 FEEPCVILLAWADKRLRFYKMHKKYRDKRGITIEEGHPKG---IENDGKMMNSH 295
DB 247 FEEPCVILLAWADKRLRFYKMHKKYRDKRGITIEEGHPKG---IENDGKMMNSH 306
QY 296 --FLDGLNVLPEKREV---ESRREMIRILDKOKHPEKDOLQVEMANYVALSHQO 348
DB 307 VENFDGLNVL--LEVERODDDEARREMARILKELKOHPEKDEQLLELARYOVLSDQO 365
QY 349 KSRAFYRIQATFRMTGAGNIIKHAADQAKKASMSSEVHTDPE--DFISKVFDPDCSYOC 407
DB 366 KSRAFYRIQATFRMTGAGNIIKHAADQAKKASMSSEVHTDPE--DFISKVFDPDCSYOC 425
QY 408 LENCAGVILLTVARKGDSKTYVYKTEDGSANAGADYEPFEGTVVLKPGTQKEFSYG 467
DB 426 LENCAGVILLTVARKGDSKTYVYKTEDGSANAGADYEPFEGTVVLKPGTQKEFSYG 485
QY 468 IIDDIFEEDEHFVRLSNVRIEEOPEEGMPALFNSLPURAYLASPCVATVILLDD 527
DB 486 IIDDIFEEDEHFVRLSNVRIEEOPEEGMPALFNSLPURAYLASPCVATVILLDD 542
QY 548 HAGITFECDTIHSESIGVMEVKVLTSGARGTVIVPFRVEGTAKGGDEEDTYGEL 587
DB 543 HAGITFECDTIHSESIGVMEVKVLTSGARGTVIVPFRVEGTAKGGDEEDTYGEL 602
QY 588 EFKNDE 593
DB 603 EFKNDE 608
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RESULT 7
US-09-864-761-33926
Sequence 33926, Application US/09864761
Patent No. US20020048763A1
GENERAL INFORMATION:
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APPLICANT: Penn, Sharon G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FO
FILE REFERENCE: Aemica-X-1
CURRENT FILING DATE: US/09/864,761
PRIOR FILING DATE: 2001-05-23
PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR FILING DATE: 2000-02-04
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR FILING DATE: 2000-08-03
PRIOR APPLICATION NUMBER: GB 24263,6
PRIOR FILING DATE: 2000-10-04
PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR FILING DATE: 2000-09-27
PRIOR APPLICATION NUMBER: PCT/US01/00666
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00667
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00664
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00669
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00665
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00668
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00663
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00662
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00661
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00670
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR FILING DATE: 2000-09-21
PRIOR APPLICATION NUMBER: US 09/608,408
PRIOR FILING DATE: 2000-06-30
PRIOR APPLICATION NUMBER: US 09/774,203
PRIOR FILING DATE: 2001-01-29
NUMBER OF SEQ ID NOS: 49117
SOFTWARE: Anomax Sequence Listing Engine vers. 1.1
SEQ ID NO 33926
LENGTH: 91
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: MAP TO AC007377.3
OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 0.82
OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 1.1
OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 0.99
OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 1.1
OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 2.2
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.8
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 1.2
OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 0.87
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 0.9
OTHER INFORMATION: EST_HUMAN HIT: T19754.1, EVALUE 3.00e-14
OTHER INFORMATION: SWISSPROT HIT: P70414, EVALUE 2.00e-43
US-09-864-761-33926
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Query Match 8.8% Score 424; DB 10; Length 91;
Best Local Similarity 86.7%; Pred. No. 4.1e-30;
Matches 78; Conservative 6; Mismatches 6; Indels 0; Gaps 0;
DEDEDESGEERLPSCFDVYMHPLTVFWKVLFAFCVPTXCHGACFAVSIILIGLTAII 766
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Db	2	DDDDDECGEENKLPSCFEDYVHMFLETKVWKLFAFVPPTLEKNNMGACFIYSILHIGLLTFAI	61
Qy	767	GDLASHFECTIGLKDSVTAIVVFVANGTSVP	796
Db	62	GDLASHFECTIGLKDSVTAIVVFVANGTSVP	91
RESULT 8			
US-10-094-214-5			
; Sequence 5, Application US/10094214			
; Patent No. US20020132303A1			
; GENERAL INFORMATION:			
; APPLICANT: Millennium Pharmaceuticals Inc.			
; APPLICANT: Curtis, Rory A.J.			
; TITLE OF INVENTION: 69318, A Human Sodium/Calcium Exchanger			
; TITLE OF INVENTION: (Transporter) Family Member and Uses Therefor			
; FILE REFERENCE: MP101-038P1RM			
; CURRENT APPLICATION NUMBER: US/10/094,214			
; CURRENT FILING DATE: 2002-03-08			
; PRIOR APPLICATION NUMBER: 60/275,078			
; PRIOR FILING DATE: 2001-03-12			
; NUMBER OF SEQ ID NOS: 5			
; SOFTWARE: FASTSEQ for Windows Version 4.0			
; SEQ ID NO 5			
; LENGTH: 661			
; TYPE: PRT			
; ORGANISM: homo sapiens			
US-10-094-214-5			
Query Match 5.0%; Score 239.5; DB 12; Length 661;			
Best Local Similarity 18.5%; Pred. No. 1.3e-12;			
Matches 166; Conservative 109; Mismatches 249; Indels 375; Gaps 32;			
Qy	39	PSGTGNNSSCGSSDCCKEGVILPIYPERNP-SLGD-KIARIVIVFVALIYMFVLSIAD	96
Db	101	PPLSEGES-ENSTHAGD-----YPKDFSLERRKCAIILHVGIMYMEIALAYCD	154
Qy	97	R-FMASIEVITSOEBREVTIKRPNGETSTTTIKVMNEMYSNLTMLAGSAPILSLIEV	155
Db	155	EEFVSLVITPK-----LGI-SDVAGATFMMAAGSAPLFLSLICV	196
Qy	156	CGHGFLA-GDLGPSTVGSAAFMETIIGICVYVLPDGETRKIKHLRVFTIAMSIFAY	214
Db	197	---FIASHNWIGITVGSAVENILFVIGMCALF-----SREILNL-----TWMPLEFRD	241
Qy	215	IMLY-----MLAVSPGVQVMEGLLLFFRPVCVLLAVADAKLLPLKYYHKKYRDRD	269
Db	242	VSEYVLDMLLIFLFDVNIWMWESLLLTAY-FCY-----VVERKF-----	282
Qy	270	HKGIIETEGDHPKGIEMDKMMNSHFLDGNLVPLEGKEVDESREEMILIKDLQKHPE	329
Db	283	-----NQVEKVMVQMINRNKVVAVTAFE	306
Qy	330	-----KDLQVEMANYALASHQOKSRAFYRIQATFRMTGAGNLLKHAEDAKKAS	381
Db	307	AQAKPSARDKDEPLPAK-----PRLQGGSSASLHNSLIRNSIFOLM---	350
Qy	382	SMSEVHTDEPDEPFISKVFDFDPCSYOCLENGCAVLLTVARKGDMKMTMVDVDTKEDGSAN	441
Db	351	---IHTIDP-----LAEELGSYGLKLYDDMTTEG---	377
Qy	442	AGADEFTGETGVILKPGTQKEFSVGIIDDDIFEEDENHFVRLSNVRIEEOPEEGMPA	501
Db	378	---RFRKRSAIL-----	386
Qy	502	IFNSILPLRAVLASPCVATVITLLDDHAGITFFECDTLHVSESIGAVEKVLRTSGARCT	561
Db	387	---HKIAKKKC-----HVDEN-----BRONGAANH	408
Qy	562	VIVPRVTEGTAAGGGGEDEDTYGELEFKNDETAKTIIRKVIYDEBEYERQENFFALGSP	621
Db	409	V-----KTEIDPN-----	416

OY 622 KWMGEGIDVDDKRTIMEEENAKRIAEKGRPVLEGNHPRLEVIIEESYEFKTTVDLIKKT 681  
 DB 417 -----STSDVENTPSSDASEPQN----- 436  
 OY 682 NLALVGTWSMRDQFMFAITVSAAGDEDEDESGEERLPCFDVYMHLLTFV-----WKV 735  
 DB 437 -----GNLSHNIEGAQOT-----ADEEEDPRLSLAMPSETRKQVTEFLVPIPIPLMIT 486  
 OY 736 LEACYPPEYCHGACAFANVSLILIGMLAIIGDLASHNGCTIGLKDSTAVVAFPGTSV 795  
 DB 487 LPDVARPSSRRKFPPIITEGSIITWIAVFSLVWMAHVOGETIGLISEELMGLTILAAGTISI 546  
 OY 796 PDTEFASKAAALQDVAADASIGNVTGSSNAVNAYFLGILAWSAAIYMLALOGQEFHVSAGTL 855  
 DB 547 PDLITSVYVARKGL-GDMAVSSVSGSNFEIDITVGLPLPMLLYVIHRRQPAVS-SINGLF 604  
 OY 856 AFSVTLPFIAPVCISVLL--YRRRPHUGELGCBROCKLATWLPVSLMILITLFTLT 912  
 DB 605 CAIVLEFLTMLFVLISLALCKWRMKNKILG-----FIMGLYFVFLVSVL 649  
  
 RESULT 9  
 US-09-961-679-2  
 ; Sequence 2, Application US/09961679  
 ; Patent No. US20020107380A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Gerhardt, Brenda  
 ; TITLE OF INVENTION: No. US20020107380A1el Human Ion-Exchanger Proteins and Polynuc  
 ; TITLE OF INVENTION: Same  
 ; FILE REFERENCE: LEX-0239-USA  
 ; CURRENT APPLICATION NUMBER: US/09/961,679  
 ; CURRENT FILING DATE: 2001-09-24  
 ; PRIOR APPLICATION NUMBER: US 60/235,745  
 ; PRIOR FILING DATE: 2000-09-27  
 ; NUMBER OF SEQ ID NOS: 7  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 2  
 ; LENGTH: 603  
 ; TYPE: PRT  
 ; ORGANISM: homo sapiens  
 US-09-961-679-2  
  
 Query Match 4.9%; Score 234.5; DB 10; Length 603;  
 Best Local Similarity 17.0%; Pred. No. 3.1e-13;  
 Matches 146; Conservative 98; Mismatches 212; Indels 401; Gaps 28;  
  
 OY 77 VIVYVVALIYFLGYSITADR-FMASIEVITSQEREVIKRPNGEFTSTTIRVNNETYSN 135  
 DB 100 VLLHITGLALYFALATVCDDEFVPSLEKICERLH-----LSEDVAG 141  
 OY 136 LTLALGSSAPEILLLSLEYGVGHGRIA-GDLGPTIYSAFNNMFIIGICVYVIPGET 194  
 DB 142 ATFMAAGSTBELPASFVIGV----FTHGDVGVGTIGYSAFNILCITIGVGLEA--GVY 195  
 OY 195 RKIKHLRVFTTAANSIFAYIMLYMILAVSPGVAVQWEGLLTFEPFCVLLAMVADKR 254  
 DB 196 VRLTMAVACRPSVYTTISIV---LIVEIYDEQIYW-MEGVLIIILVLYFYL----- 243  
 OY 255 LLFYVYMKKXRTQKHRCIIITETEDDHKGIEMGKMMNSHFLDGNLVPLEGKE---VD 310  
 DB 244 IMKIYVKKQAFPIYKQKSI-----ANGNPVNSELEAVKEKPYQKMPVYVMD 290  
 OY 311 ESRREMIRILLDKQKHEDLDOLV-----EMANYALSHOOKSRAPFYRIQATR 360  
 DB 291 E-----IMSSBPKPTPEAGLRIMITMKFPPRTRLRASHIILINRG-----R 334  
 OY 361 MMTGAGNLLKKHAAEQAKKASSMSEVHTDEPDEPITSKVFDPGSCQCLENCANVLLTVR 420  
 DB 335 LINSANGVSSKPLONGRHEINTENGVPVENED----- 367  
 OY 421 KGGDMSKMIVYDYKTEEDSANAAGADYEFTGETVVLKPGETQKETSVGIIIDDFEEDHF 480

Db 368 -----POQNO----- 372  
Qy 461 FVRLSNVRIEERPEEGMPAIFNSLPBRAVLASPCVATVILLDDHAGITFECDTH 540  
Db 373 -----EQPPPPPP-----PEPEVEA----- 390  
Qy 541 VSESIGVMEVKVLRISGARGVIVPFRVECTAKGGEDFEDTGCLEPKNDETQTVIRV 600  
Db 391 -----DLSFPVSVEARGKV----- 406  
Qy 601 KIVDEEYEROEENFIALGEPYMERGISDVTDRKLTMEEBEAKRIAEMKRPVLEHPKL 660  
Db 407 -----KVV----- 409  
Qy 661 EVIIESEYEFKTTVDKLIKTNLALVGTSHWRDQFMFAITYSAAGDEDESGERLPS 720  
Db 410 -----FTWPLIFLCVTT-----PN 424  
Y 721 C-----FDYVMHFLTFWVKVLFACVPTPEYCHGACFAVSILITGLTAIGDLASHF 773  
Db 425 CSKPRMEKFMVTFITATIMAVF-----SYIMWLVTTI----- 459  
Qy 774 GCTIGLKDSVTAIVFAVAGTSPDTPFASKAALQDVYDASIGNVTGNAVNVFLGIGLA 833  
Db 460 GTTLGIPDIVIMGITFLAGTSVPCDMASLIVARQGL-GDMASVNTIGSNVFDILVGLGVP 518  
Qy 834 MSVAIYVALOGQEFHVSAGTLAFSVTLFTTAFVCISVL-LYRRPHLGGELGPGRCCK 892  
Db 519 WGLQTMV-VNGSVTKVINSRGLVSVVL--LLGSVALTVLGIHLNKRDLRKL----- 569  
Qy 893 LATVWLFVSLMLYLIF 909  
Db 570 -----YVVLVLYAIF 579

RESULT 10  
US-10-094-214-4  
; Sequence 4, Application US/10094214  
; Patent No. US20020132303A1  
; GENERAL INFORMATION:  
; APPLICANT: Curtils, Rory A.J.  
; TITLE OF INVENTION: 69318. A Human Sodium/Calcium Exchanger  
; FILE REFERENCE: MP101-038B1M  
; CURRENT APPLICATION NUMBER: US/10/094.214  
; PRIOR FILING DATE: 2002-03-08  
; PRIOR APPLICATION NUMBER: 60/275,078  
; NUMBER OF SEQ ID NOS: 5  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 4  
; LENGTH: 152  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: consensus  
US-10-094-214-4

Query Match 4.1%; Score 194.5; DB 12; Length 152;  
Best Local Similarity 34.4%; Pred. No. 1,1e-09;  
Matches 54; Conservative 28; Mismatches 56; Indels 17; Gaps 4;

Qy 756 IILIMLTAIIGDLASHGCTIGLKDSVTAIVFAVAGTSPDTPFASKAALQDVY-ADAS 814  
Db 2 LIVLG--ADLFVDGASALAEVIGISESVIGTLVAGTSLPELFAFLAALQGOADIA 59  
Qy 815 IGVNVSNAVNVFLGIGLMSVAIYVALOGQEFHVSAGTLAFSVTLFTTAFVCISVLL 874  
Db 60 IGVNIGSNFENLLIGLIGLISLAPLYHKAKGESFIVDPISLRDV-LFLLVLLILYL 118  
Qy 875 YRRRPHLGGELGPGRCCKLATVWLFVSLMLYLIFAT 911

Db 119 LLGRSLIGRGD-----VLLILYLILYL 142  
RESULT 11  
US-09-961-679-6  
; Sequence 6, Application US/09961679  
; Patent No. US20020107380A1  
; GENERAL INFORMATION:  
; APPLICANT: Friddele, Carl Johan  
; TITLE OF INVENTION: No. US20020107380A1 Human Ion-Exchanger Proteins and Polynuc  
; FILE REFERENCE: LEX-0239-USA  
; CURRENT APPLICATION NUMBER: US/09/961,679  
; PRIOR FILING DATE: 2001-09-24  
; NUMBER OF SEQ ID NOS: 7  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 6  
; LENGTH: 353  
; TYPE: PRT  
; ORGANISM: homo sapiens  
US-09-961-679-6

Query Match 3.4%; Score 165; DB 10; Length 353;  
Best Local Similarity 22.3%; Pred. No. 1,6e-06;  
Matches 78; Conservative 54; Mismatches 131; Indels 86; Gaps 14;

Qy 616 IALGEPKMERGISDVTDRKLTMEEBEAKRIAEMK-PVL-----GHPK-----L 660  
Db 12 IANGNP-----VNSELAVERKEPOYKGNPNVYMDEIMSSSPPTFTPEACL 57  
Qy 661 EVIIESEYEFKTTV-----DKLIKTNLALVGTSHWRDQFMFAITYSAAGDE 709  
Db 58 RIMITNKFGRTRLRMASRIINERQRLINSANGVSSKPLQNGRHNENIGNVAPENPD 117  
Qy 710 EDESGEERLPS-----FDYVMHFLT-----VF-KVVLFA-----CVP 741  
Db 118 POQNOEQPPPPPPPEPEPEVADFLSPVSPEARGDKKVWFTWPLIFLCVTTIPNCSK 177  
Qy 742 PREYCHGACFAVSILITGLTAIIGDLASHGCTIGLKDSVTAIVFAVAGTSPDTPFAS 801  
Db 178 PRMEKFMVTFITATIMAVESYIMWLVTTIGTIGTIDVIMGITFLAGTSVPCDMAS 237  
Qy 802 KAAALQDVYDASIGNVTGNAVNVFLGIGLMSVAIYVALOGQEFHVSAGTLAFSVTL 861  
Db 238 LIVARQGL-GDMASVNTIGSNVFDILVGLGVPWGLQTMV-VNGSVTKVINSRGLVSVVL 295  
Qy 862 FTTFAFVCISVL-LYRRPHLGGELGPGRCCKLATVWLFVSLMLYLIF 909  
Db 296 --LLGSVALTVLGIHLNKRDLRKL-----YVVLVLYAIF 329

RESULT 12  
US-09-961-679-4  
; Sequence 4, Application US/09961679  
; Patent No. US20020107380A1  
; GENERAL INFORMATION:  
; APPLICANT: Friddele, Carl Johan  
; TITLE OF INVENTION: Same  
; FILE REFERENCE: LEX-0239-USA  
; CURRENT APPLICATION NUMBER: US/09/961,679  
; PRIOR FILING DATE: 2001-09-24  
; NUMBER OF SEQ ID NOS: 7  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 4  
; LENGTH: 316  
; TYPE: PRT

ORGANISM: homo sapiens  
US-09-961-679-4

Query Match 3.4%; Score 162.5; DB 10; Length 316;  
Best Local Similarity 23.5%; Pred. No. 2,2e-06;  
Matches 65; Conservative 47; Mismatches 112; Indels 53; Gaps 10;

QY 662 VIIIESEYEFYTVKLIKTKNLALVNGTSHWRDQFMEATVSAAGDEDESGERLPSC 721  
DB 40 IITNER-----QRLINSANGVSSKPLQNGRHNENGNVPENPEDPOONOQPPPO 92  
QY 722 -----FDVYMHFLT-----VF-KVLF-----CYPPPEYCHGNACFA 753  
DB 93 PPPPEPEPEADFLSPSPVPEANGDKVWFTEPLFLFLCCTIPNCSKPRMEKFEFVTF 152  
QY 754 VSIIIGLITAIIGDLASHGCTIGLKSTAVFAVFGTSPDTFASKAALQDYADA 813  
DB 153 TATLMTAVFYIMWVLTITIGTIGLIDVIMGITFLAGISVDCMSALVAAGL-GDM 211  
QY 814 SIGNVGSNAVNFPLIGLAMSVAATYALQGEFHVSACTLAFSVTLTFIAFVCISVL 873  
DB 212 AVSNTIGSNFIDLIVGIVPWGLOTWV-VNYGSTVKINSRLVYSVL--LLGSVALTVL 268  
QY 874 -LYRRRPHLGGELGPRGCKLATWLFVSLMLYTLF 909  
DB 269 GHUNKWRLDRKLG-----VYVLVLAIF 292

RESULT 13  
US-09-864-761-37185  
Sequence 37185, Application US/09864761  
Patent No. US20020048763A1  
GENERAL INFORMATION:  
APPLICANT: Penn, Sharon G.  
APPLICANT: Rank, David R.  
APPLICANT: Hanzel, David K.  
APPLICANT: Chen, Wensheng  
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR  
FILE REFERENCE: Aecomica-X-1  
CURRENT APPLICATION NUMBER: US/09/864,761  
CURRENT FILING DATE: 2001-05-23  
PRIOR APPLICATION NUMBER: US 60/180,312  
PRIOR FILING DATE: 2000-02-04  
PRIOR APPLICATION NUMBER: US 60/207,456  
PRIOR FILING DATE: 2000-05-26  
PRIOR APPLICATION NUMBER: US 09/632,366  
PRIOR FILING DATE: 2000-08-03  
PRIOR APPLICATION NUMBER: GB 24263.6  
PRIOR FILING DATE: 2000-10-04  
PRIOR APPLICATION NUMBER: US 60/236,359  
PRIOR FILING DATE: 2000-09-27  
PRIOR APPLICATION NUMBER: PCT/US01/00666  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00667  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00664  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00669  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00665  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00668  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00663  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00662  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00661  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00670  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: US 60/234,687

PRIOR FILING DATE: 2000-09-21  
PRIOR APPLICATION NUMBER: US 09/608,408  
PRIOR FILING DATE: 2000-06-30  
PRIOR APPLICATION NUMBER: US 09/774,203  
PRIOR FILING DATE: 2001-01-29  
NUMBER OF SEQ ID NOS: 49117  
SOFTWARE: Annomax Sequence Listing Engine vers. 1.1  
SEQ ID NO 37185  
LENGTH: 42  
TYPE: PRT  
ORGANISM: Homo sapiens  
FEATURE:  
OTHER INFORMATION: MAP TO AC007377.3  
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 0.68  
OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 0.8  
OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 0.86  
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 0.57  
OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 0.92  
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.69  
OTHER INFORMATION: EST\_HUMAN HIT: BE936105.1, EVALUATE 5.00e-05  
OTHER INFORMATION: SWISSPROT HIT: Q01728, EVALUATE 2.00e-18  
US-09-864-761-37185

Query Match 3.1%; Score 151; DB 10; Length 42;  
Best Local Similarity 80.6%; Pred. No. 9.1e-07;  
Matches 29; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

QY 636 LTMEEERAKRIAEKGRPLGVEHPKLEIIESEYEFK 671  
DB 7 LTKSEERERIAEMKGRPIELGEHTRKLEIIESEYEFK 42

RESULT 14  
US-10-094-214-2  
Sequence 2, Application US/10094214  
Patent No. US20020132303A1  
GENERAL INFORMATION:  
APPLICANT: Curtis, Rory A. J.  
APPLICANT: Millennium Pharmaceuticals Inc.  
TITLE OF INVENTION: 69318, A Human Sodium/Calcium Exchanger  
FILE REFERENCE: MP101-038PIRM  
CURRENT APPLICATION NUMBER: US/10/094,214  
CURRENT FILING DATE: 2002-03-08  
PRIOR APPLICATION NUMBER: 60/275,078  
PRIOR FILING DATE: 2001-03-12  
NUMBER OF SEQ ID NOS: 5  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 2  
LENGTH: 584  
TYPE: PRT  
ORGANISM: homo sapiens  
US-10-094-214-2

Query Match 2.4%; Score 116.5; DB 12; Length 584;  
Best Local Similarity 21.7%; Pred. No. 0.061;  
Matches 60; Conservative 41; Mismatches 84; Indels 91; Gaps 14;

QY 25 LNLRAEAGS---SGDVPSRGN-----NESC---SSSDC 54  
DB 24 VSGTSGSSGTAHISPOPPASGVNOTPVVDCRKVCGLNSDRDCFIRTPNDCSHSDGGLD 83  
QY 55 KEGV-----ILPIWPNPISLGDRIARYVYFVALIYFGLVSTIADRFMAISIVITS 107  
DB 84 LECIFCHFPSSLPL-----AVTLVSMVLVFLILGVTAKKFFC----- 123  
QY 108 QREVTIKRPNGETSTTIRVMNETVSNLTLMALGSSAPILLISLIEVCGHGFIAGDLGP 167  
DB 124 -----PNLSAISTTLKL-SHNVAGVYFLAFGAGADIFGALVAF-----SDPHT 166  
QY 168 STIVGSAARFMFIITIGICIVYIPDGETRKIKHLRVFIFTAAMSIFAYIMLYMT-----L 221  
DB 167 AGIALGALFGAGLV--TTVAVAGIT--ILHP--FMAASRPFDFIVYVAVFLTFL 218



Qy 222 AVFSPGVQVWE-GLLTLEFFPV--CVLLAWADKR 254  
: | | | | : | : :  
Db 219 MEFRGRVTLAWALGYLGVFVYVYVILCTWIYGRQ 254

RESULT 15  
US-09-815-242-12135

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; Patent NO. US20020061569A1  
; GENERAL INFORMATION:  
; EDITORIAL INFORMATION:
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APPLICANT: Haseideck, Robert  
APPLICANT: Ohlsen, Karl L.  
APPLICANT: Zyskind, Judith W.  
APPLICANT: Wall, Daniel  
APPLICANT: Trawick, John D.  
APPLICANT: [REDACTED]

APPLICANT: Yamamoto, Robert T.  
APPLICANT: Xu, H. Howard

TITLE OF INVENTION: Identification of Essential Genes in  
TITLE OF INVENTION: Prokaryotes

FILE REFERENCE: ELITRA.011A  
CURRENT APPLICATION NUMBER: 000000015 043

; CURRENT FILING DATE: 2001-03-21  
 ; CURRENT APPLICATION NUMBER: US/09/815,242

;; PRIOR APPLICATION NUMBER: 60/191,078  
; PRIOR FILING DATE: 2000-03-21

;  
; PRIOR APPLICATION NUMBER: 60/206,848  
; PRIOR FILING DATE: 2000-05-23

PRIOR APPLICATION NUMBER: 60/207,727  
PRIOR FILING DATE: 2000-05-26

PRIOR APPLICATION NUMBER: 60/242,578  
PRIOR FILING DATE: 2000-10-23

PRIOR FILING DATE: 2000-10-23  
PRIOR APPLICATION NUMBER: 60/253,625  
PRIOR FILING DATE: 2000-10-23

PRIOR FILING DATE: 2000-11-21  
PRIOR APPLICATION NUMBER: 60/257,931

PRIOR FILING DATE: 2000-12-22  
PRIOR APPLICATION NUMBER: 60/269,308

; PRIOR FILING DATE: 2001-02-16  
 ; NUMBER OF SEQ ID NOS: 14110

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; SOFTWARE: FastSeq for Windows Version 4.0
; SEO ID NO 12135

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; LENGTH: 657
TYPE: PPM

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ORGANISM: Staphylococcus aureus

US-09-815-242-12135

Query Match	2.48;	Score 116;	DB 10;	Length 657;
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Best Local Similarity 20.88; Pred. No. 0.081;

Matches 91; Conservative 55; Mismatches 133; Indels 158; Gaps 22;

QY 556 SGARCTVIVPRTVEG-----TAKGGGEDEF-----DTYGE 586

Db 26 STVAGDVIAIRYKRMQGYDVRYLTGTDENSGOKIOEKAOKAGKTEFVYIDEMTAGIKOLWAK 85

05 587 LFFNDETVKTI--RVKIVDEEEYFR-ONNEFIAIGPBRMERGISTVNDKRI TMEEFFA 6/3

85 I F I S N D D E T O M T H E R E D U K I N I L E O U E R E D I W O O D T V C S V E R G I O U N D D E T I M E T O C U 1 4 1 1

00 DEISNDDI IRI I EKNHNVQV EFKBNQSDII LGE --- IEGWISVPEDEII IYESQLV 141

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044 KRIAEMGRPVGEHP-----KLEVIIEESIEFKTY--VDKLK-----679
      | | | : | : | : | | | | : | : | :

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Db 142 DQYENKIIIGKSPDSGHEVELKEESIIFNISKYTDRLLEFYDQNPDEFIOPPSRKNE 201

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QY      680 -----KTNLA-LVV-----GTH-----SWRDQFMEAITVSAGDEDEDES---711
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Db 202 INNEIKPGLADLAVSRTSFNMGVHPSPNPKHVYVWIDALVNYI--SALGYLSDDESLFN 255

0Y 714 -----GEERLPSCFDYMHFLTFVFWKVLAC---VPPTIEYCHGWACFAVSILII 759

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Db      260 KYPADIHMAKE-----IVRFHSIWPILLMALDLPKPYFAHGWI-----LMKD 306

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QY 760 GMLTAIGD-----LASHFGCTIGLDSVTAVFEVAFGTSVPDTEFASKAALQDVYADA 813

Db 307 GKMSKSGNVDPNLTIDRYGLDATRYYLMRELPGSGDGVTPPEAFVER-----TNE 358

QY 814 SIGNVTGSNAVNFIIGISLANVAIAIW-----AIOG-----QEFHVS 851

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Db      359  DLANDLG-NLVNRTI-----SMINKFEDGELPAYQGPLHELDEMEAMALETVKSYTES 411
          ::| | | | | : | | | | | : | |

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QY 852 AGTLAFSVTLLEIAFV 868

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      : | | | | | : | :
Dbb 412 MESLOFSVALSTWKEI 428

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Job time : 17.7463 secs
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